



Solid Sorbents as a Retrofit Technology for CO₂ Capture from Coal-Fired Power Plants

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**Sharon Sjostrom & Holly Krutka
AD Environmental Solutions**

Development Approach

Targets:

- Retrofit technology for existing plants
- High CO₂ removal (> 90% achievable)
- Maintain costs below \$35/ton CO₂
- Produces high purity CO₂ stream



Phase I:

- ✓ Screen existing and developmental sorbents
- ❑ Evaluate promising materials at field sites
- ❑ Conceptual equipment design and initial economics for 500MW plant

Sorbent Success Criteria

- Theoretical Regeneration Energy
 - Working Capacity
 - Reaction Energy
- Reaction Kinetics
- Consistent Performance
- Durability
- Availability & Cost

> 100 sorbents tested to-date at lab-scale

Pre-Pilot Testing Scheduled to begin in December